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teras of its neighbours on the north and south have been proved by experience to be rich in silver and copper ores, which have been extensively worked : the mining districts of Pasco, Puno, and Potosí are sufficient proof of this. And surely the inference may be drawn, that this torpid and roadless country is as capable of a prosperous development as any on the Pacific shore, and the more so when its recent discoveries, both of native and ruby silver, are considered.

V.—*Notes of a Voyage up the Yang-tze or Ta-Kiang, from Wusung to Han-kow.* By LAURENCE OLIPHANT, Esq., F.R.G.S.; with Chart of the River by Captain SHERARD OSBORN, R.N., F.R.G.S., &c.

Read, March 22, 1859.

ALTHOUGH the expedition up the great river of China, popularly known as the Yang-tze-kiang, from which the British embassy to that empire has just returned, was undertaken in pursuance of a policy of which this interesting event forms the concluding episode, it was a source of great gratification to those engaged in it to feel that its geographical value was fully equal to its political importance, and that while employed in farthering the interests of Great Britain in this quarter, they might also incidentally be the means of rendering some service to the great cause of geographical discovery.

It is, however, to the naval officers, upon whom the execution of this difficult and arduous enterprise devolved, that the credit is due for having brought it to so complete and successful an issue.

It is scarcely too much to assert that the ascent for the first time of an unknown river, for a distance of upwards of 600 miles from its mouth, in a ship of 1300 tons, and drawing 16 feet of water, is an achievement which has never been surpassed in the annals of internal navigation or river exploration.

It is impossible to estimate too highly the skill and energy of Captain Sherard Osborn, a valued Fellow of the Society, or the unwearied assiduity and indefatigable exertions of the Master of the *Furious*, Mr. Court. Doubtless the Arctic training of both these officers stood them in good stead.

Of the services of Captain Osborn in the Arctic regions it is superfluous to speak; of Mr. Court it suffices to say that, as Master of the *Investigator*, he performed the North-West passage with our gold medallist, Sir Robert M'Clure.

As, in addition to the absence which existed of any information with reference to the breadth of the river, or the nature of its channel, it was known that some of the principal cities on its banks

were in the hands of rebels, and its defensible points were reported to be strongly fortified, it was deemed advisable that Lord Elgin should be accompanied by a naval force, sufficiently strong to overcome any opposition which might be offered to his progress to Han-kow, the point fixed upon as the ultimate destination of the expedition.

In accordance with this view the squadron, which left its anchorage a little above the mouth of the Shanghai river on the morning of the 9th of November, was composed of H.M.S. *Retribution*, Captain Barker; *Furious*, Captain Osborn; *Cruizer*, Commander Bythesea; gunboat *Dove*, Commander Ward; and gunboat *Lee*, Lieutenant Jones.

In consequence of the great draught of water of the *Retribution*, it was afterwards found necessary to leave her at a town in possession of the Imperialist forces, about 90 miles above Nankin.

All the remaining ships reached Han-kow, and the important services rendered by Commander Ward and Lieutenant Jones in sounding the channel in advance, and pioneering the larger ships into deep water, are deserving of the highest praise, while the great utility of the class of vessels they commanded for this description of service was strikingly illustrated.

The facility with which the *Cruizer*, a ship of 750 tons, and drawing 14 feet of water, under the able handling of her commander, made the passage to Han-kow, was the more remarkable, as she was furnished only with an auxiliary screw of 60-horse power. The importance of this fact will be better appreciated when we come to consider the commercial capabilities of the river.

We had not proceeded far on our river-journey before it became apparent that, notwithstanding the knowledge we had acquired of the navigation of the Yang-tze-kiang as far as Nankin during the last war, and the fact that, even so recently as 1854, Her Majesty's ships had visited that city, the channel of the river had undergone such a total change as to render the charts, upon which, doubtless, Captains Kellett and Collinson had expended so much labour and industry, calculated rather to mislead than to guide.

Twenty-four hours had scarcely elapsed before every ship in the squadron had discovered a new sandbank, by a process convincing, if not convenient; that of feeling it with her keel. Shoals had been converted into islands, or had disappeared altogether, and the spot formerly avoided as a danger, was now discovered to be the deep and safe channel.

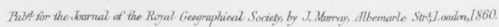
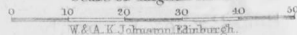
But this entire transformation was not confined to the bed of the river alone. In some places its banks were similarly affected; former landmarks had disappeared, or become so altered as to be no longer distinguishable.

FROM
HAN-KOW IN HOOPEH TO NANKIN IN KIANGSU

H. M. S. Furious,

1858.

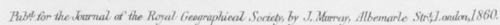
Scale of English Miles.



of English Miles.

20 30 40 50

K Johnston, Edinburgh.



Thus Mason Island did not now appear to be separated from Tsung-ming by a channel three fathoms deep, but was connected with Harvey Point by a neck of land covered with bushes, and formed part and parcel of this vast accumulation of river-deposit which now extends from Drinkwater Point, below the entrance to the Shanghai River, to within three miles of the north bank of the Yang-tze-kiang.

The intricacies of this navigation delayed us for a day ; on the 11th we proceeded more rapidly, passing the Lang-shan or Wolf's-hill Pagoda, a conspicuous object on the left bank perched upon a conical hill, which rises abruptly from the plain ; opposite lay the village and fort of Foo-shan, "the Hill of Peace," prettily situated on low hills.

The river at this point is about 6 miles in breadth. Here our onward progress again received a sudden check. The channel which has been hitherto invariably followed by ships proceeding to Nankin, at this point crosses from the southern to the northern bank of the river. By this passage the *Belle-isle* and *Cornwallis* two-deckers reached Nankin in 1843 ; by the same passage, eleven years later, the *S'yx* and *Rattler* found their way without difficulty within a few yards of the spot at which we found ourselves suddenly compelled to come to an anchor : 6 fathoms were marked on the chart of Captains Kellett and Collinson ; on that spot our soundings gave us just 6 feet. For two days and a half the gun-boats were employed in looking for a channel. That one existed we entertained no doubt ; it was impossible to suppose that the vast volume of water which is discharged by the Yang-tze-kiang should find its only egress to the sea over a 1-fathom bar ; but it soon became equally certain that a-head of us no such channel could be found. It only remained to try back and discover whether the extensive spit of sand marked in the chart as connected with the northern bank, had been separated from it by some recent action of the river-current, thus leaving a passage between it and the main. Such, in fact, we found to be the case. Retracing our steps to Plover Point, a distance of 6 miles, we rounded the end of the spit, and proceeded along a deep channel, carrying 10 fathoms of water, where formerly there had not been 2. The important changes which have thus been found to have taken place in the direction of the current of the river, render an extended survey of its mouth a work not only of great necessity in a hydrographical point of view, but in the present state of our altered relations with China, of the utmost importance in the interests of our commerce with that country. When we consider the northerly direction taken by the current at Lang-shan, and the violence with which it seems to impinge upon the land formerly known as Mason Island, silting

up a channel 4 miles broad, it may very fairly be conjectured that a larger proportion of the volume of water which splits itself upon the western point of this land finds its outlet by the northern channel than formerly, and that those sand-banks which at the period of the last survey seemed to block this entrance may be found to have been swept away, and replaced by a deep, wide passage. The increased multiplication of obstacles which now exist to impede the navigation of the southern branch of the river are strongly in favour of this hypothesis.

From this point to Chin-kiang the banks of the river are too well known to require description; nothing occurred to mark our progress until the morning of the 16th, when, on rounding the bluff opposite Silver Island, and whilst admiring the scenic beauties of that magnificent reach, which extends from it past the city of Chin-kiang to Golden Island, the *Furious* suddenly struck upon a sunken rock in the centre of the narrow passage, through which the whole British fleet, consisting of 80 sail, had passed unscathed in 1843, and at a spot where 16 fathoms were marked upon the chart.

During the three following days the most unremitting exertions were used in lightening the ship, but it was not until guns, shot, and coal, weighing upwards of 260 tons, were taken out of her, that she was sufficiently buoyant to float off into deep water. This interval was taken advantage of by those not otherwise employed, to explore the neighbouring country and visit the city, or rather the ruins of the city, of Chin-kiang-foo.

The suburb through which our path led us for nearly 2 miles did not exist even in ruins; the ground once covered by it was now an utter waste of brickbats, overgrown with weeds; here and there some former inhabitant had returned, and collecting the fragments of his demolished abode, raised a fragile tenement of broken bricks and tiles, and roofed it in with grass, the dreary hut rather adding to than diminishing the general aspect of desolation which surrounded it. In the city the shells of houses still remained, and the streets reminded one strongly of those of Pompeii, only at one point a small knot of inhabited houses formed the nucleus of a population once numbering some hundreds of thousands of souls.

Some ten months have elapsed since the city was retaken from the rebels by the Imperialist forces, but as many years will be required to restore it to its former condition. At present confidence has not been sufficiently restored to induce the inhabitants to return and rebuild their fallen houses.

At Kinshan or Golden Island, a picturesque rock a little above Chin-kiang, on which stand a ruined pagoda, and the remains of some temples, another remarkable change has taken place in the river. The rock is no longer an island. We walked to it through

cabbage-gardens; but fifteen years ago it was divided from the main land by a channel, in which, according to the chart, there were 10 fathoms of water.

From the summit of this rock an extensive view is obtained over the vast plain to the northward, through which we could follow the winding course of the Grand Canal, the ruined town of Kwa-chow marking the spot at which it enters the Yang-tze-kiang. Two or three war-junks were the only signs of river-life at a point once celebrated as a focus of commercial activity. Rising out of the hazy atmosphere of the plain we could discern the pagoda of Yang-chow, though the distance was too great for us to detect the rebel bands said to be threatening it at the time.

It is worthy of note, that it is only from this point to the sea that the River Yang-tze-kiang is known to the Chinese by that name: henceforward we heard it called only the Ta-kiang, or Great River; nor do sinalogues now receive as correct the poetical interpretation which has heretofore been received as the true signification of these three characters.

It seems a pity to dispel the delusion that Yang-tse means "Child of the Ocean," but the character Yang, which is the same as that used in Yang-chow, means "to spread;" and as this is the point at which the river begins to spread, and as it ceases to retain the appellation when it is no longer so distinguished, it is most probable that this is the correct meaning of the first character. Tze means "son," and Kiang "river." In the orthography which I have followed throughout in spelling the names of the places on the bank of the river, I have been guided by the simple rule of endeavouring to produce with the letters of the alphabet, as pronounced in the English language, the nearest approximation to the Chinese sounds, believing that though we should avail ourselves of all the vocabularies of Europe, and incorporate into one orthographical system all their forms of accentuation, and varieties of pronunciation, we should still fail to convey to the ear of the English reader any notion of those sounds which even foreign residents in China, with the exception of a few sinalogues, do not attempt to give utterance to. The only instance in which I have departed from this rule is in that of the hard "K." The most competent authorities assert that this letter in the words "Pekin," "Nankin," &c., is pronounced "Ch;" as, however, the introduction of the cities "Pechin" and "Nanchin" for the first time into the Chinese empire would serve rather to confuse than otherwise, the hard "K" has been retained throughout.

On the afternoon of the 20th we passed the advanced junks of the Imperial fleet, at present blockading Nankin, and which are moored just out of range of the rebel batteries. A few moments afterwards the flag of truce hoisted by the *Lee* was fired upon by

the rebels, and a collision ensued which resulted in a loss to ourselves of one killed, and two severely wounded, and was terminated only by the increasing darkness.

After a short engagement of an hour and a half on the following morning, in which we succeeded in silencing and partially demolishing the rebel batteries, we proceeded on our voyage up the river.

The river at Nankin is about 1000 yards broad. On the northern bank the rebel battery of Poo-kow faces the southern works. On the southern bank their position extends for 8 miles above the town, terminating in a battery which an Imperial fleet was in the act of engaging as we passed.

The lines of the Imperialist army, said by the Chinese to be composed of "many myriads," were visible crowning the heights in rear of the city. Their position occupies a semicircle, of which 10 miles of the river forms the chord. A wall apparently encloses this vast area, recently built by the Imperialists for the double purpose of more effectually blockading the besieged, and fortifying their own position. Their extreme left rests on the river at a small town, name unknown, 2 miles beyond which the bluff of Sanshan, or the "three hills," projects boldly into the river. A little beyond Sanshan the river divides into two channels; the northern was that followed by Lord Amherst in 1815, and passes within 2 miles of the city of Ho-chow, the pagoda of which was dimly visible from our mast-heads.

The river reunites a little above Tai-ping, about 20 miles higher up, the intervening islands forming a flat expanse of reeds from 4 to 8 miles in breadth. In the far distance to the north we could discern an apparently lofty range of mountains behind Ho-chow. On the southern bank the bluffs frequently projected into the river, occasionally, however, receding into swelling hills at a distance of some miles, the intervening strip covered with reeds, and but very thinly inhabited. These hills, which attained no great elevation, appeared covered with a short, coarse grass, and sometimes with heather.

For the next 15 miles we were doubtful in whose hands the banks of the river were; not a junk was visible on its waters, and scarcely a soul appeared on its banks, except now and then a fisherman or ragged labourer. At last we reached the small town of Tsai-shih-ke, built in a recess of the hills, which here approached the river, and defended by two or three circular stone redoubts, mounting three or four guns each.

Some rebels in bright colours came down to the water and fired at us with gingsals, but we had not time to do more than destroy one fort and scatter its defenders. The same evening we anchored off the rebel city of Tai-ping, but its garrison were not in a warlike mood.

From this point to Kew-hsien, a distance of 44 miles, the southern bank is in the hands of the rebels, who overrun the country for some distance inland, and live upon the contributions they forcibly levy from the impoverished peasantry. Whenever there is a strong position on the river they occupy both banks, but on the northern shore confine themselves to garrisoning isolated posts, and cannot be said to hold the country.

Thus, at the romantic pass of the eastern and western Pillar Hills, through which the river forces itself about 6 miles above Tai-ping, they occupy the fortified rocks on both sides. These fortresses are in the highest degree picturesque. The "Toong-Leang-Shan," or Eastern Pillar hill, is a precipitous bluff, rising to a height of from three to four hundred feet out of the water, crowned with a crenellated wall; its rugged face frowns with batteries, and is scored with rock-cut steps and steep zigzag approaches. Its *vis-à-vis*, the See-Leang-Shan, or Western Pillar hill, is shaped like the Rock of Gibraltar on a smaller scale. It, too, is covered with fortifications, a cluster of houses nestle at its base, a Bhuddist temple is perched on its dizzy cliffs, and the guns of a line of earthworks running along the water's edge sweep the narrow passage, which, not above three quarters of a mile broad and commanded effectually by the batteries on the rocks, would render this an impregnable position in the hands of a civilized power. In a strategical point of view, it may be regarded as the key of the river. Immediately above this pass, the river is again divided by large flat islands, which extend for about 36 miles. As neither the soundings nor direction of the northern channel were promising, we again followed the southern branch. The low land on our right was fortified for a distance of three or four miles by five forts, admirably constructed of unburnt brick and stone, flanked by bastions mounting heavy guns, apparently well garrisoned by the rebels, and altogether presenting a most finished and at the same time effective appearance. These forts were placed on a level with the water, and distant from each other about three quarters of a mile.

The opposite bank retained its character, the grassy hills occasionally running down to the river, and there terminating abruptly. The important rebel position and once flourishing town of Woo-hoo is situated on the southern shore. It is distant about 22 miles from Tai-ping, and its site is marked by two pagodas, one situated on the river bank, the other on a hill a short distance from it. We had met with no opposition from the numerous batteries we had passed during the day, and were courteously received by the rebels in occupation of the line of forts which form the military post on the river. The town itself is about two miles inland, on a small tributary, which here enters the Ta-kiang. The intervening

distance was lately covered by a populous suburb,—it now looks a very likely place for pheasants. Some of our party visited the town, but found only a solitary street standing, and that contained scarcely any shops.

Before the rebel incursion, Woo-hoo was considered one of the most important commercial towns on the river. Neither did the rebel chief, whom I visited in his Yamun, nor the rabble by which he was surrounded, prepossess one in a way calculated to remove the unfavourable impression which these evidences of deeds of blood and violence could not fail to produce in the minds of those who witnessed them. They stated the rebel force in occupation of this post to be 8000 strong. Only about three miles above the town, at the village of Lan-kaou, we passed a large blockading squadron of Imperial junks. These are of course cut off from communication with Nankin, but are enabled to traverse the river with comparative safety above this point to Ganking; junk fleets being stationed at various points in the intervening distance.

Beyond Lan-kaou the southern bank of the river begins to change its character; the grassy hills are replaced by wooded mountains, possessing great picturesque beauty, and enclosing rich and formerly well cultivated valleys. We could see the process of depopulation going on as we passed them. Whole villages were migrating for safety, though, alas! without much hope of finding it; the rebel army devastating the country as it advanced, and finally we saw them engaging the Imperialists at Shen-Shan-Kya. From the nature of the fighting, however, the battle did not seem likely to be attended with very serious consequences to either side.

"Kew-hsien" was the first Imperialist town we had reached since entering the rebel country at "Nankin." It was partially protected from attack by the range of mountains, which, rising abruptly behind the town, and extending for some miles along the river bank, secures to the narrow strip of intervening district with the villages upon it some immunity from the predatory incursions of the insurgent forces. Immediately in rear of this range the country is overrun by them. The town of "Wan-chang" is distant only 14 miles from Kew-hsien, forming one of their important military posts, from which they threaten the Imperialist position on the river. Leaving the *Retribution* at "Kew-hsien," we proceeded on our voyage with the remaining four ships, the hills on our left rising in confused masses to a height of about 2000 feet above a richly wooded and diversified strip of lower land. Passing the picturesque rock of "Pan-tze-ke," with its ruined temple and pagoda, embosomed in autumn-tinted foliage, we reached the Italian looking town of Tee-kiang, also Imperialist; its white houses clustering up the hill side, and its handsome stone bridge of three arches spanning a small tributary stream. At this point

the range winds abruptly away from the river in a southerly direction. A vast level plain extends on both sides, the distant range still visibly bounding the northern horizon, and towering above the intervening ranges, the lofty peaks of the "Ta-hwa-shan" may now for the first time be observed to the south-east.

The river now takes a somewhat eccentric course, widening into noble reaches, most magnificent and imposing and of great depth, then folding back like a huge serpent, and embracing in its coils large flat islands on the southern bank. Toong-ling is said to be in rebel occupation: following the northern branch this city is not discernible, but on the opposite shore we pass the rebel walled city of Too-cheaou.

The northern range now begins to approach the river, its elevation apparently from 2000 to 3000 feet. The islands are generally covered with tall reeds, sometimes partially cultivated: the banks are dotted with hamlets, in rear of which the cultivated plain extends to the base of the mountains, but the country is by no means densely populated.

The navigation of the river is attended with no great difficulty up to this point; the soundings are regular, and the river occasionally unites into one magnificent sheet of water from 3 to 4 miles in breadth; usually, however, it is cut up by islands.

A spur of the "Ta-hwa-shan" range, of which the celebrated "Kew-hwa-shan," now distinctly visible, is the highest summit, approaches the river below Toong-ling, and terminates in the picturesque bluff called "Nang-shan-ke;" out of its precipitous face steps are hewn for the convenience of persons tracking boats.

Immediately above it the river divides into three branches. The large low wooded island which separates the two principal channels is called Ho-yeh-chow from a plant like arrowroot which it produces. From this point to Chee-chow-foo the southern bank is held by the Imperialists, the mountains again approaching the river and proving their best defence. This important provincial city, however, is in the hands of the rebels. It is situated on the southern branch of the river, but its pagoda was distinctly visible across the low island which divided us from it. Near the Imperialist town of Ta-toong the Moo-kan lake, or rather Lagoon, commences; and, it was reported, extended for a distance of 30 miles, separated from the river, to which it is parallel, by a very narrow slip of land, and running back to the mountain range.

We had no opportunity of landing and exploring this section of the banks of the river. According to Mr. Ellis the greater part of the hills in this neighbourhood are composed of sandstone and puddingstone, in a state of disintegration. We were delighted with the contrasts of the variegated foliage with which they were clothed; the dark green of the Scotch fir, the deep red of the

fading leaves of the tallow tree, and fiery tints of what appeared to be diverse species of oak and maple, covered the hills, as it were, with a carpet of the most brilliant hues.

The principal articles of cultivation here were the same as we observed throughout the whole length of our voyage up the river, and consisted chiefly of wheat, cotton, millet, sweet potatoes, rice, hemp, and beans.

At Tsung-yang, an Imperialist post situated on a small tributary which takes its rise in the range on the north bank, here known as the Gno mountains, we passed an Imperial fleet consisting of 350 junks. These were co-operating with the land force then engaged in besieging the capital city of Ganking. At this spot a remarkable rock called the 'Tai-tze-ke rises out of the mid stream, and is covered by the ruins of a temple. A few yards below it a rocky ledge runs from the southern bank, more than half way across the stream, the sharp points rising out of the water like stepping stones, and forming a most dangerous reef. The passage for ships in which there is plenty of water passes close under the left bank, and is called the 48 chang, or 180 yards passage. The legendary name of the reef is Lan-keang-ke, or the Hen barrier. Before reaching Ganking, the channel again divides, passing through a broad expanse of cultivated and grazing land, upon which we observed numerous herds of cattle. The mountains on the left bank approach close to the city, the lower heights crowned with the standards of the Imperialist troops.

Considering its importance as the capital city of the province of Ngan-hwui, we were disappointed in the extent and general appearance of the city. It boasts, however, the handsomest pagoda on the river, and the walls are massive and in good preservation. Looking over them from the mast-head we observed large spaces covered with ruins. We no sooner came within range of their guns than the rebel garrison opened fire upon us; a sharp cannonade in reply silenced them in less than a quarter of an hour, and though the channel led us close under the guns on the city wall, we passed without a casualty. Henceforward our way lay through peaceful districts, this being the last rebel post up the river. We made speedy progress to Toong-lew; some of the reaches were about 10 miles in length, with a uniform breadth of about 2 miles. From the mast-head large lakes were visible on both sides, sometimes embosomed among the hills like Highland lochs, at others assuming a more marshy appearance, and covering for miles the plains at their base. In the summer months all these lakes are filled by the overflowing waters of the Ta-kiang, which is subject to vast annual inundations. The height of the occasional rise of the river was singularly indicated upon the face of the precipitous cliffs that terminate the high mountain range,

which approach the river on the right bank below Toong-lew. These mountains are separated from the river by a narrow plain, but with the telescope the high water mark was distinctly visible on the sheer bluffs. At Ma-toong-shan the river divides, the southern branch running in under the mountains, which here overhang it in a very remarkable and striking manner.

We landed on the opposite shore, and crossing a partially cultivated plain for about two miles reached a chain of lakes which apparently extend without interruption from Ganking into the province of Kiang-si. We punted about them in chase of the numerous flocks of wild swans, geese, ducks, and other water-fowl with which they abounded, and found them to be of no great depth. They were from two to three miles wide, and as seen from the mast-head, looked like some rival river to the Ta-kiang. From their opposite shore undulating hills rose one above the other, and formed at last a lofty range. Although we were favoured with a cloudless sky on our voyage, the atmosphere was unfortunately so hazy, that we but rarely got glimpses of some very distant mountains which now and then loomed away to the northward. Their towering peaks were apparently forty or fifty miles off, and of great elevation. At the singular rock called Seaou-koo-shan, or the Little Orphan hill, the river rushes with great velocity through a narrow channel, scarcely a quarter of a mile in breadth. Our soundings gave us fifteen and sixteen fathoms. Rising like a wall out of this deep water on the southern side, the bluffs known as the Chintze-shan, or Mirror hill, attain an elevation of 500 feet; its rocky ledges crowned with the walls of an abandoned rebel fortification. Facing it, the Little Orphan, like a gigantic land-mark, shoots in an isolated mass out of the stream to a height of about 300 feet. A temple hewn out of the face of the rock is approached by an almost precipitous flight of steps, and invests this remarkable rock with a double interest. Altogether there is only one other spot on the river which can compete with the grandeur and sublime beauty of this pass.

It has been chosen, not unnaturally, as the boundary of the two provinces of Ngan-hwui and Kiang-si. We were now in the latter; on the southern shore the mountains came down to the water's edge; on the northern, they again receded and were separated from us by plains and lakes. A gale of wind and the intricacies of the navigation baffled and delayed us as we approached the entrance to the Poyang Lake. We had been three weeks in performing the voyage to this point. We were delighted with the noble scenery which distinguishes this important feature in the geographical configuration of this part of China.

The magnificent Leu-shan, or Mule Mountains, abruptly terminate in a stupendous peak, upwards of 5000 feet in height, which seems to preside over this great meeting of waters. The

eddies circle round the rugged base of the Tsa-ke, or "Jagged Head," on the summit of which the white houses and walls of Hoo-kow are picturesquely perched ; while the Ta-koo-shan, or Great Orphan rock, stands like a sentry at his post in midstream. But the interest of this spot is not confined to the attractions of its scenery alone. There is no section of the river more worthy of attention in a geographical point of view. We had now ascended the Ta-kiang for a distance of 450 miles, and had only just reached its first real affluent. For, with the exception of the Tsung-yang river, which joins a lake a little above Ganking, all those tributaries, marked as such in the maps, turned out to be ditches, almost dry in the winter time : but here the great river meets a feeder worthy of it. In a single deep rolling tide the Poyang Lake discharges into it the whole drainage of the vast province of Kiang-si. Into this extensive basin fall the Kan, Foo, and Siu rivers, and the Sung-lo, Bohea, and Meilan hills pour their respective contributions. These hills form a half circle, and separate Kiang-si from the adjoining provinces of Cheh-kiang, Fokien, and Kwang-tung. The rivers which rise on their outer slopes water all those rich seaboard provinces, while those which rise on their inner are all collected in the Poyang Lake. These considerations will enable us to form some estimate of the volume of water which goes to swell the Ta-kiang at this point. Surrounded on all sides by lofty ranges, the northern barrier of the lake must, at some former period, have proved the feeblest, and given egress to the accumulated waters through this gorge, known as the Pa-li-kiang, or eight-li river. As though to meet this important accession, the Ta-kiang seems to have taken that great southern bend which forms one of the most marked features of its long course. In forming this curve, it has been compelled to force its passage through the Ma-tse-shan, or "Horse Spine" range, which forms a part of the western boundary of Kiang-si, dividing that province from Hoopoh. These mountains cross the river at Woo-sueh, and under another name trend away to the north-east, marking the frontier of the province in that direction, and leaving a small strip of it enclosed between them and the northern bank of the Ta-kiang. After having thus fulfilled its mission by dipping into Kiang-si, and carrying off the surplus waters of the Poyang, the great river leaves the province by the romantic pass of the Seaou-koo-shan, or Orphan hill already described. The mountain system of this part of China may be better understood by supposing that with those ranges, along the base of which the river forms its southern curve, a northern range is connected, forming as it were a loop upon it, and opposing barriers which the river has burst to obtain ingress and egress. At the same time it is to be borne in mind that the mountains composing this loop are not the only

mountains to the north of the river. As repeatedly observed, high ranges were constantly visible in that direction, though they rarely approached the river. In fact, throughout the whole length of our voyage, the great valley of the Ta-kiang maintained the same general character which may be described in a few words. Its breadth varied exceedingly, and may have ranged from 10 to 50 miles. The river invariably hugged the southern ranges, which seldom receded more than 4 or 5 miles from its banks, leaving a strip of alluvial plain, while numerous lakes washed their base or lay embosomed among the hills. To the north, plain and lake sometimes extended as far as the eye could reach, but generally mountains more or less distant closed the prospect.

It would seem impossible for us with our limited experience to form any idea of the aspect which this valley must present during the summer rains. The country people accounted for the temporary appearance of their dwellings by the fact, that they were removed before the floods, asserting that the river occasionally rose 100 feet. We were contented to believe, however, our own observation, and the marks we perceived convinced us that 50 feet above its then level was a low estimate for the summer rise. But even this would lay thousands of square miles under water. Nor are these inundations always fertilizing in their influence. We observed, in places where the current had evidently rushed violently over the face of the country, extensive sand deposits overlying the rich loam which composed the subsoil. In some parts, and this was more especially noticeable near Hoo-kow, the strong gales which are common in this locality had swept the sand into dunes, which present a remarkable contrast to the green knolls and wooded mountains which usually rise from the river-bank. Immense areas of cultivated or pasture land are thus occasionally devastated, and even ultimately the waters only partially recede, leaving vast tracts of country covered with those lagoons and marshes already described. It can hardly be doubted that these lakes exercise a very marked influence upon the rise and fall of the river. During the dry season a considerable subsidence takes place, and the channels by which their surplus waters were discharged into the river dry up. The consequence is, that after partial rains all those mountain torrents which would under other circumstances go to swell the waters of the parent stream, get absorbed in the lakes at the base of the hills, and unless the rain is of sufficient duration to overflow them, the river receives no additional supply. Meantime the great evaporation which must take place from so large a surface of water renders the rise of the lakes comparatively slow. This would appear the only way of accounting for the fact that although partial rises do occur in the river, they are not so common as the humidity of the climate would lead one to anticipate. In all probability, however, it will be found that below the Poyang Lake these rises

occur with greater frequency than above it. This may be presumed from the fact, that the waters which supply the Poyang rising in lower latitudes are not subject to those frosts, and are more readily thawed than the upper tributaries of the river, and that consequently the volume of water discharged from that lake varies in amount to a much greater extent than that which flows down to meet it.

At the point of junction large flat islands of sand have been formed, and constantly shifting banks render the navigation difficult and tedious. On our downward voyage, in consequence of a fall in the water of seven feet, which had taken place during the interval of a fortnight, the *Furious* and *Cruizer* were detained for fifteen days just above these bars, and had given up all hope of escaping from their imprisonment until the spring rains, when an unexpected rise of three feet took place, and floated them over.

About 15 miles above the confluence is the provincial city of Kew-keang; its walls, running for miles over the tops of barren hills, enclosed, as usual, a vast area covered with ruins. It is surrounded by lakes, in rear of which rise the Lew-shan mountains. The general bearing of our course now became north-west, and we entered upon the finest scenery of which our experience of the river can boast. Both banks are well cultivated and populated until we reach the Ma-tze-shan mountains, which, rising abruptly from the water's edge to a height of from 1500 to 2000 feet, display a charming combination of wild moorland and rocky promontories, with wooded valleys and verdant slopes. A little beyond Woolsüeh, a populous town on the opposite bank, this range turns off to the south-west; behind it we could see three distinct ranges rising one above the other in the far distance. The gigantic rock called Pwan-pien-shan, rearing its rugged crest to a height of about 300 feet above the water in one sheer wall, marks our entrance to the province of Hoopéh. Facing it, a precipitous limestone range, scarped by quarries, overhangs the river, which here forces itself through the narrow gorge I have already alluded to, as the entrance to the loop of mountains. Were it not for the current, we might at this point imagine ourselves in a Highland loch. The river seems to have no outlet from the mountains which surround it. In front, the fantastic summits of a range about 3000 feet high, to which, in consequence of a singular depression in their outline, we gave the name of the Devil's Bite range, close the prospect. Behind us were the Ma-tze-shan, while on either hand limestone cliffs and overhanging bluffs enclosed us within their rocky limits. Emerging from this interesting pass, we opened on the left bank the picturesque city of Ke-chow, also in ruins; opposite to which a large lake studded with islands was observed at a little distance inland on the right bank. In mid-stream a round fort like a martello tower rises out of the water.

Beyond this the mountains recede on both sides, and the extensive plains are well peopled and cultivated until we reach the Ke-tow bluff, when beetling limestone cliffs and rugged promontories again overhang the river on its southern shore. These are connected with the Pih-tze-shan range to the westward.

Throughout the whole length of our voyage to Han-kow, not only did the banks of the river retain very much the same character, but the cultivation did not perceptibly alter. The cotton of the district of Hing-kwoh, which is the first on entering Hoopoh, is celebrated. To the north and east the Lotien range, which we fancied we perceived in the distance, produces some good teas. At Hwang-chow, a large walled provincial city with a handsome pagoda, the vast level plains stretched away on either side, affording pasturage to herds of buffaloes. The people seemed more prosperous and the country better populated than in those districts which are still liable to rebel incursion. Not that even here that danger is very far removed. Some large lakes were visible on the right bank opposite Hwang-chow; but our information was precarious and insufficient, and I could not be satisfied which was the Liang-tze, celebrated as one of the largest lakes in this province of lakes. At all events, they were connected with it, and formed part of a chain which affords water communication direct with the largest lake in China—the Toong-ting, and, we were told, would enable boats to avoid the détour to the northward which the river makes past Han-kow. From this point to Han-kow the highlands become more rare, and plains and lakes more numerous.

Although there was every appearance of a denser population than had characterised many sections of the lower portion of the river, we were not impressed with the idea either of the fertility of the soil, or the wealth and abundance of the inhabitants, which the meagre accounts that had previously reached us, led us to form. The peasantry, where the country is not harassed by civil war, are contented and comfortable; but there is a total absence of anything like a display of wealth or luxury either in the towns or country. It is difficult to judge of the trading capabilities of a country so internally convulsed as China is at this juncture, but there seems a great danger of over-estimating them. Even between the Poyang lake and Han-kow, where the river is perfectly free from rebels, hardly any trading junks are to be seen; and until we reach the latter city there is no spot at which any considerable head of population is collected, or any indication of an extensive internal traffic apparent.

There can be little doubt, however, that the natural advantages which that celebrated mart possesses, must always render it a place of great importance in a commercial point of view; and it is not easy to estimate the effect which the concentration of a foreign

community, and the accumulation of foreign capital at this point, may produce upon the river traffic generally, or to what extent it may tend to stimulate mercantile enterprise and activity at different localities upon its banks; still less can we speculate where those localities are likely to be. The causes which combine to create a local traffic are so various, and trade is sometimes found to develop itself so capriciously, that we must leave these events to decide themselves. It would seem, however, that the entrance to the Poyang lake would prove an important centre of commerce. There can be no doubt that few rivers in the world offer greater facilities for navigation than the Ta-kiang; and, although a ship drawing 16 feet of water at a distance of 500 miles from the mouth in the dry season experienced some impediments to her progress, vessels of a smaller draught could always navigate it with ease. The *Cruizer* never once touched the bottom after getting clear of the shoals at the mouth. Inasmuch, however, as grave objections exist to the employment of auxiliary screws in merchantmen upon long voyages, it will probably be found that the whole trade on the river will be carried on by steamers adapted to the purpose, and that Shanghae will be the port of transshipment. The question will then resolve itself into one of competition between Chinese and foreign inland transport; and experience will soon prove how far the cheap but slow junk will hold its own against the expeditious and expensive steamer. The distance from the Poyang lake to Han-kow is estimated at about 180 miles. As we approached our destination, the vast plains on both hands seemed more thickly populated than any tract of country we had passed hitherto. Hamlets and villages now lined both banks continuously. The dull uniformity of the plain was here and there broken by ridges of low hills, of which the most remarkable terminated in a bluff over the river, known as the Pih-hoo-shan or White Tiger mountain. Numerous lakes were visible in every direction. Hills on both sides of the river mark the site of the three cities of Woo-chang, Han-yang, and Han-kow,—the former situated on the right bank, the two latter on the left.

The Han river here joins the Ta-kiang. It rises in the Tsan-ling mountains, in the province of Shen-si; and, after a course of about 600 miles, falls into the great river at Han-kow. There is a considerable traffic carried on upon its waters, which were crowded with junks at the point of confluence. Its breadth, however, opposite Han-kow does not average more than a hundred yards. The mart of commerce is situated on its left bank, and occupies the triangle of which the two rivers form two sides. The area which it covers is not very large, and its closely-packed houses and crowded streets do not contain, to all appearance, more than half a million of souls. On the other side of the Han, a spur of hills, crowned with a loopholed wall, conceals the once

complete little city of Han-yang: it is now a desolation and a waste, comprising only a few hundred inhabited houses; the ruined archways which span its deserted streets, and the carved blocks of granite strewn about them, alone testifying to its former pretensions. The capital city of Woo-chang, however, situated immediately opposite Han-yang, presents a noble appearance. The river at this point is about a mile in width; its right bank is faced by the double line of walls which for about two miles forms the fortification of the city. Within, the swelling hills are terraced with houses, and adorned with temples and pagodas; while beyond them, in the distance, the city walls may still be discerned enclosing an enormous area. When entered, unfortunately the discovery is made that it borrows much of its enchantment from distance. From Han-yang the walls look white and glistening, and the houses roofed and perfect; but when inspected more closely we find the same scene of ruin and desolation, though not to so great an extent as in other cities, which have undergone the same experiences of rebel occupation, and can tell the same history of sieges and defences. Woo-chang is the residence of the Governor-General of the two Hoos; his yamun is in good preservation, and approached by a handsome street, which tunnels through a hill. The population, together with that of Han-yang, may equal that of Han-kow. Its once inhabited area was fully as great as that of Canton, while the walls were estimated at about a third longer. Both here and at Han-kow the streets were broader and cleaner, and the shops handsomer, than is usual in Chinese cities. Two years have scarcely elapsed since the latter place was burnt to the ground, but it is rapidly undergoing the process of restoration, and the collection of foreigners here will give it an impetus, and will do more to advance it than any Imperialist success over the rebels, whom the people still hold in dread.

It would swell the limits of this paper too much to enter upon the principal features which characterise the trade at present existing at Han-kow. There can be no doubt that it is the only place on the lower part of the river which has any pretension to commercial activity; nor is there any spot in the empire more suited to be the centre from which foreign trade will radiate.

How long and under what conditions it will be, looking at the present convulsed state of this section of China, before a foreign community will be established here, are questions of a political nature, which it does not fall within the limits of this paper to discuss. How, when any such settlement is made, advantage can best be taken of the increased facilities which will then be offered to the introduction of British manufactures into the heart of this vast empire, is a commercial consideration which will doubtless engage the attention of those interested in the subject and competent to deal with it. Meantime we may safely predict that,

sooner or later, the mighty Ta-kiang will afford abundant occupation for the statesman, the merchant, and the geographer.

In conclusion, I would beg to call the attention of the Society to the obligation which we are under to Captain Sherard Osborn, Mr. Court, and Mr. Bridges, of the *Furious*, for the very elaborate and interesting chart of the river, which Captain Osborn has kindly permitted me to enclose, and which will doubtless do more to convey a correct idea of the course of the stream and the nature of its banks than the paper it serves to illustrate. He has also furnished me with the appended abstract of distance between all the important points on the river from Woosung to Han-kow.

H.M.S. "Furious."

ABSTRACT of DISTANCES accomplished Daily between Woo-sung and Han-kow, on the Yang-tze-kiang.

Date.	Place.		Distance	
	Left.	Arrived at.	Run.	From Woosung.
1858.				
Nov. 8	Woosung	Bush Island	8	8
9	Bush Island	Aground on Blonde Shoal.	16	11
10	Blonde Shoal	Harvey Point	4	23
11	Harvey Point	Off Foo-shan	25	48
12	Off Foo-shan.			
13	Ditto.			
14	Foo-shan. Went back 13 miles, as far as Plover Point, from thence 37 miles up the river	Kiang-yin	50	72
15	Kiang-yin	Fishbourne Shoals ..	37	109
16	Fishbourne Shoals ..	Silver Island	23	132
17, 18, 19	On shore at Silver Island.			
20	Silver Island	Nankin	48	180
21	Nankin	Tai-ping	35	215
22	Tai-ping	"	5	220
23	"	Woo-hoo	17 $\frac{1}{4}$	237 $\frac{1}{4}$
24	Woo-hoo	Too-che-ou	48 $\frac{1}{2}$	285 $\frac{3}{4}$
25	Too-che-ou	Tsung-yang (Rocky Shoal)	48	333 $\frac{1}{4}$
26	" Tsung-yang," passed Nganking	Toong-lew	49	382 $\frac{3}{4}$
27	Toong-lew	On shore	10	392 $\frac{3}{4}$
28	Passed Sea-ou-kou-shan (Little Orphan Rock)	Nearly to the Poyang Lake	38	430 $\frac{3}{4}$
29	Arrived at the Poyang Lake		10 $\frac{1}{2}$	441
30	Poyang Lake	Kew-kiang	14	455
Dec. 1	Kew-kiang	Woot-seih	32	487
2	Woo-sueh (passed Kechow)	Hwang shih-kang ..	46 $\frac{1}{2}$	533 $\frac{1}{2}$
3	Passed Hwang-chow stoppage.		34	567 $\frac{1}{2}$
4	Stopped.			
5	"	Yang-lo	36	603 $\frac{1}{2}$
6	Yang-lo	Han-kow	20	623 $\frac{1}{2}$

H.M.S. "Furious."

ABSTRACT of DISTANCES accomplished Daily between Han-kow and Woo-sung, on the Yang-tze-kiang.

Date.	Place.		Distance	
	Left.	Arrived at.	Run.	From Han-kow.
1858.				
Dec. 12.. ..	Han-kow	Northward of the Hwang-chow Shoals	53	53
13.. ..	Hwang-chow Shoals ..	Woo-chang-hsien ..	11	64
14.. ..	Crossing over	to the Channel	5	69
15.. ..	Red-sand Rock Point ..	Lime-quarries below Hwang-shih-kang	19	88
16.. ..	Lime-quarries below Hwang-shih-kang	Woot-seih	48	136
17, 18..	Looking for	Channel	..	136
19.. ..	Attempted to	cross the bar	1½	137½
20.. ..	Crossed the bar	Kew-kiang	23	160½
21 to	Off Kew-kiang		..	160½
Jan. 2, 1859.				
1859.				
Jan. 3.. ..	Kew-kiang	8 miles above the "Poyang Lake"	12	172½
4.. ..	8 miles above the "Poyang Lake"	5 miles below Sea-ou-kou-shan (Little Orphan Rock)	36	208½
5.. ..	5 miles below Sea-ou-kou-shan	Lan-keang-kee ..	73	281½
6.. ..	Lan-keang-kee	Kew-hien	84	365½
7.. ..	Kew-hien	8 miles above Nankin	78	443½
8.. ..	8 miles above Nankin..	5 miles below Kiang-yin	115	558½
9.. ..	5 miles below Kiang-yin	Bush Island	60	618½
10.. ..	Bush Island	Wusung	5	623½

VI.—*Ascent of the Yang-tze-Kiang.* By WILLIAM
BLACKNEY, R.N.

Communicated by Captain BYRON DRURY, R.N., F.R.G.S.

Read, March 28, 1859.

H.M.S. Actæon, Shanghai, Jan. 10, 1859.

By the last mail (7th January) I sent you a postscript of the 'North China Herald,' with an account of Lord Elgin's Expedition up the Yang-tze-Kiang. I had not time to write a letter with it, but I trust you may find this which I write now readable—the paper, however, is the best general account.

You will no doubt be surprised to hear of the *Actæon* being still at Shanghai, as when I wrote in October we were on the eve of sailing for the North. The